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ABSTRACT

Many self-concept measures employ several different scales to which the subject responds in a set order at one sitting. This study examined the effects of different testing conditions on such scales. Bill's Index of Adjustment and Values was administered to 191 graduate students under two different sequences, and two time delay conditions. The results indicate that performance on the real and ideal self scales was significantly affected by both sequence and time delay and by the interaction of these variables. No differences were found on the self-acceptance scale or the discrepancy scores. Implications for educational testing and research are discussed. (Author)

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CONVERGENCE IN SELF-CONCEPT MEASURES: FACT OR ARTIFACT?

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OBJECTIVES AND THEORETICAL FRAMEWORK

A number of self-concept measures make use of some type of Real Self-Ideal Self (R-I) discrepancy score (Bills, Vance, and McLean, 1951; Worchel, 1957; LaForge and Suczek 1955). It has been suggested (Robinson and Shaver, 1969) that this procedure may "impose consistency ... more than two separate ratings would." (p. 94) If such a bias is operative, the convergent and discriminant validity of these measures could be questioned. Wiley (1961, 1964) has already presented evidence which calls into question the discriminant validity of one such scale, Bill's Index of Adjustment and Values (IAV).

The purpose of the present study was to examine the effects of sequence (the order in which S's take the sub-scales) and time lag (whether or not all scales were taken in a single setting) on the scales of the IAV. This instrument, described by Bills, Vance, and McLean (1951) was chosen because there is more reliability and validity data available on it than on other self-concept instruments that yield R-I scores (Wylie, 1961).

METHOD

One hundred and ninety-one graduate education students at Kent State University served as S's in the study. All of these students (mostly practicing teachers, mean age = 29 years) were enrolled in core requirement courses during the spring of 1972. The courses were taught by five different faculty members who regularly teach these courses.

Two orders of administration were used: the normal order-real self, acceptance of self, and ideal self (RAI) and an inverted order (IRA). In addition, some S's completed all three scales at one sitting while others had a five week period separating the completion of the ideal self scale from the completion of the other two scales. The combination of these two independent variables yielded a 2 x 2 factorial analysis of variance design with the four cells corresponding to the following treatment conditons:

RAI (n = 54) - normal sequence, no delay
RA--I (n = 43) - normal sequence, delay
IRA (n = 55) - inverted sequence, no delay
I -- RA (n = 39) - inverted sequence, delay

These four conditions were randomly assigned to the ten classes.

A flaw in the above design was the fact that S's in the delay conditions did not have access to their previous responses as did S's who took the three scales in one sitting. Since it was not possible to discover the extent to which this contamination would affect the results, a second study was conducted to examine the potency of this variable.

Fifty-six students in three of E's later sections of the same courses were randomly assigned to either a knowledge of previous performance (+K, n = 31) or a no knowledge condition (-K, n = 25). Both groups took the scales in the normal sequence with the five week delay; i.e., RA—I.

RESULTS

The analysis of variance of the discrepancy scores (R-I) revealed no significant differences for time delay ($F = 0.242$, df = 1/190), sequence ($F = 3.464$, df = 1/190) or delay x sequence ($F = 0.071$, df = 1/190). Similarly, no significant differences were obtained on the self-acceptance scale utilizing a 2 x 2 analysis of variance. However, a 2 x 2 analysis of variance for the self-concept scale revealed significant differences at the .05 level for both time delay ($F = 6.595$) and sequence ($F = 4.709$) with an interaction between the two significant at the .001 level ($F = 11.719$). For the ideal self scale, the differences (time delay, $F = 21.617$; sequence, $F = 28.851$; and interaction, $F = 27.976$) were all significant at the .001 level. The interaction suggests that S's score higher on the self-concept scale under the normal sequence with the delay condition, but with no delay the self-concept score is higher under the inverted sequence. The opposite results were obtained for the ideal self scores: they were higher under the normal sequence when there was no delay and higher under the inverted sequence when there was delay.

In the second part of the study, which examined the effects of knowledge of previous performance using only the normal sequence, there was no significant difference between the means of the +K group ($\bar{x} = 31.93$; S.D. = 13.25) and the -K group ($\bar{x} = 34.52$; S.D. = 11.40) on the discrepancy scores ($t = 0.77$).

DISCUSSION

Research on self-concept as it relates to various educational variables has often been plagued by the unreliability and questionable validity of self-concept scales. If we are to know the effects of self concept on achievement and/or adjustment in schools, we must have confidence that the scores we obtain are not a function of the manner of presentation. The results of this investigation suggest that this may not be the case.

The failure to find any significant differences in the discrepancy score as a function of time delay or sequence is not in accord with Robinson and Shaver's concern about an imposed consistency. However, it is entirely possible that this finding is a result of the cancellation of the effects found on the ideal and real self scales, which in themselves call into question the results of those studies which use only the normal sequence administered at a single sitting. Furthermore, the value of this type of scale as a clinical instrument must be reassessed if further research shows these findings to be reliable.

These conclusions are perhaps offered more boldly than they should be, given that no effort was made in this study to control for the fact that subjects in the delay condition were not able to see their responses to the previous scale(s). A second set of data, independently collected and analyzed, did not find this effect to be significant, but this does not reduce the need to replicate the original study with this variable controlled.

Although the cause of the differences in time delay conditions cannot be attributed directly to one variable (as indicated above), these differences, coupled with the differences in sequence conditions, strongly suggest that further research is needed to determine the artifacts of administration that may be affecting scores on multiple-scale measures of self-concept. Such research should consider the scales as dependent variables in a multivariate analysis.

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